
INVESTMENT ADVISORY SERVICE TO :

From

KK NESAR Projects Private Ltd

(CIN NO: U74200GJ2009PTC058267 - Registered - Oct 2009)

VADODARA - 390 002

FOR SOLAR POWER PLANTS

PROJECT :

Web site : www.kknesar.com

Company : KK NESAR projects Pvt Ltd
(Incorporated as per Company Act 1956)

Main Objectives while advising our Investors :

- **To offer techno commercial evaluation, viability, profitability, sustainability of the Solar & Hydro Power project based on the Detailed Project Report and the business dynamics in order to protect the interest of the Investors vis-à-vis Promoters or Project proponents / developers**
- **Technical analysis will also be based on the technology and equipment to be sourced for the economic maintenance and to ensure the useful life as per the design conditions to have good return on investment.**
- **Detailed Financial evaluation based on DPR vis-à-vis present day technology, costs, escalations, environment impact, payment mechanism as per PPA etc.**

This presentation is Focused on : Solar Power (Renewable) Project Investment decision

**AN UPDATED AND VALIDATED DETAILED PROJECT REPORT (DPR)
WHICH SHALL CONSIST THE FOLLOWING MINIMUM DETAILS :**

Vol 1 : Main Report

Vol 2 : Shadow study, Land Survey, Power evacuation

Vol 3 : Drawings

Vol 4 : Estimation of Cost and Financial Evaluation

Vol 4 : Exhibits

**PPA related documents along with all necessary project
approvals**

**KK NESAR has the passion to contribute for the development of
renewable energy**

DPR Volume 1 : Main Report shall consist minimum of the following :

- Check list for CEA – MNRE / Division / the State Nodal Agency
- Qualitative and a neat Detailed report covering Introduction, Project Area, Salient Features, Need for the project, Surveys & Investigations, Irradiation study, Shadow study, Geology for Civil structures, Power Potential study, Necessary annexures, Civil structures, Electrical equipment including inverter selection, Grid connectivity, Electro mechanical equipment, Construction Methodology & Planning, Infrastructure works, Environmental Impact Assesment (EIA) study, Cost estimation, Economic evaluation, Executive summary
- Design Calculations for the various structures or features (but not limited to) eg :
 - Evaluation of the Solar resource,Shadow study
 - Irradiation and number of units (kwh) generation
 - Selection criteria for PV panel i.e thin film, crystalline etc
 - Photovoltaic facilities calculations, Increasing the plant profitability
 - Inverter House with power storage necessity
 - Power evacuation with detailed electrics, State grid connectivity
 - Selection criteria for the Electrical equipment with sizing calculations

DPR shall be from the reputed company or Consultants

DPR Volume 2 : Shadow study, Land Survey, Power evacuation shall consist of Minimum of the following :

- Description, CD with satellite images along with Data of Irradiation, Sub surface, exploration at various structure locations, Satellite imagery, Rock mechanics tests of site and other specific geological considerations.
- Photovoltaic facilities calculations, single line diagram
- Seismotectonic Evaluation and Seismic Potential
- State Load Dispatch center with KV rating, electrics, stability of loading, load demand, metering etc
- Grid related approvals, issues, tripartite agreements with State govt, DISCOMs and NRVNL or as per MNRE guidelines

DPR & Shadow study report shall be from the reputed company or Consultants vetted by third party or Proof consultants

DPR Volume 3 : Drawings shall consist minimum of the following :

- **General layout, Project Layout, Shadow area with location of Panel rows with necessary clearances i.e placement optimisation, Construction phases, Alternative studies (if any), Specific area layout of Panel area, Power house with Inverter location, Wiring diagram, Video Surveillance systems and anti-theft sensors, Power house, Inverter area, Battery storage area, various level layouts, metering area and other structures as applicable to the specific project.**
- **Electric scheme with Generating (PV panels) Unit and GIS, Power house AC auxiliaries etc**
- **Geological bore holes layout with details.**

DPR shall be from the reputed company or Consultants

DPR Volume 4 : Estimation of Cost and Financial Evaluation shall consist minimum of the following :

- **Project Cost with abstract of Cost estimates for Civil works, All structures, Switch yard, Panels equipment area, Inverter, Battery, Cabling, Power evacuation area, Metering area, Tripping or overload area, various building, plantation, Maintenance, Special tools & plants, Communication, Environment, Ecology, Aforestation, Losses on stock, Receipts & recoveries, Indirect charges.**
- **Working rates of civil works with item rates**
- **Working rates for machinery with user rates**
- **Cost estimates with BOQ for PV works eg Panels, Cables, Inverter, Battery, Accessories, Electrical equipment for Power station and other services, Substation equipment, switch yard and aux. equipment etc**
- **Financial evaluation considering all the above costs, Escalations, IDC and Financing charges, Means of financing, Computation of Tariff per unit, Calculation of Income tax**

DPR & Financial report shall be from the reputed company or Consultants vetted by third party or Proof consultants

DPR Volume 5 : Exhibits shall consist minimum of the following :

- Inception report, Integration report
- Certificate of incorporation of the Project developer / plant owner, Orders of govt, notices, letter of clearance from Environment, wild life (if applicable), letter of grant of use of solar power and such statutory approvals from various departments of state and central governments.
- Detailed PPA, tripartite agreement between State govt, DISCOM, payment mechanism, Guarantee of payment from NRVNL with Escrow agreement etc
- Details of penalty clauses, if any
- Identified risks and Insurance with its associated costs

DPR & other reports shall be from the reputed company or Consultants vetted by third party or Proof consultants

KK NESAR offers its clients and promoters (Project Proponents) the possibility of carrying out "turnkey" projects through a world renowned EPC Contractor, for which it can be partially or fully responsible for the following duties:

- Searching for a location, Land acquisition support
- Connection and work permits including PPA support function
- Shadow study for projects with or without solar tracker
- Land survey
- Low voltage electrical engineering for solar project
- Civil works for the entire project
- Carrying out of civil works with our leaf network organisations
- Electrical installation (low and high voltage)
- Mechanical assembly of solar panels with or without trackers
- Permits for business start-up and from the electric company / DISCOM
- Monitoring of the production and of the condition of the solar plant
- Video surveillance systems and anti-theft sensors.
- Operation of the plant (maintenance and comprehensive management: insurance, surveillance, etc).
- Searching for financing options
- Attracting clients with necessary exit plans

**Deployment of Right Technology, Plant Automation,
Power Distribution with a judicious investment option**

- Verification of Adequacy of system design, provisions, approvals, construction related risks, escalation, project schedule validation with the anticipated hold points if any.
- Review the Sizing and selection of plant and machinery and their adequacy or suitability.
- Our views or Suggestion on Equipment Technology partner with a suggestion on technical advantages, if any.
- Our views on Unit tariff and profitability based on future maintenance and operation costs.
- Identification of the Buyer of the Project if the initial MOU signing authority wants to sell the project.
- Identification of the Anchor investor or part investor with clarity on sharing of profit.
- Identification of the land, Land acquisition and arranging the final sale deed.

W H A T W E O F F E R

- Preparation of Specification of Project to identify the EPC Contractor either of National or International contract while complying GREDL / NVVNL requirement.
- Arrange an EPC contractor as a Consultant to the Project Developer as Owner's Engineer with control on costs and project implementation
- Remain responsible till the initial stabilisation of the project with 4 bills realisation as owner's engineer.
- Identify the Energy buyer with liaison activities with Gujarat Government.
- Advise on Organisational needs to execute the project and the promoter's back ground for the effective completion of project and its sustainability for the plant life.
- Go or no Go decision on the Investment with correct assessment of financial numbers vis-à-vis technology and equipment selected.

Deployment of Right Technology, Plant Automation, Power Distribution with a judicious investment option

KK NESAR projects Pvt Ltd

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**WE BELIEVE IN QUALITY AND DELIVERY
OF NICHE SUPPORT SERVICE**

THANKS

**OUR CONFIDENCE : YOU WILL NEVER REGRET OF
HAVING HIRED OUR SERVICE RATHER PROVIDE US
REPEAT / REFERRAL BUSINESS**